

REMARKS/ARGUMENTS

Claims 1-6 and 19-36 are pending. Claims 2-4 and 7-18 were withdrawn from consideration, however, the Applicants believe that Claim 2 is part of the elected subject matter. Independent Claims 1 and 2 have been amended to exclude heterocyclic substituents in ring A. These claims have also been amended to clarify the identity of the E group and to explicitly define the R` substituent. Support for the clarification of the E group is found in formula (I) which appears in the original claim and for R` substituent in the specification on page 13, lines 10-14. Nonstatutory use Claims 16-18 have been cancelled. New method Claims 19-22 find support in the specification on page 15, lines 25-30 and in original Claims 7, 11 and 16-18. New Claims 23-25 find support in original Claim 1 and in the specification, page 15, lines 13-24. Claims 26-36 refer to various substituents for the compound of Claim 1. Support for these claims is found in original Claim 1 and on pages 18, line 18-page 26 of the specification. Accordingly, the Applicants do not believe that any new matter has been added.

The Applicants thank Examiner Shailendra-Kumar for the courteous and helpful discussion of June 27, 2005. The Applicants pointed out that formula (I) (see Claim 1 and page 3 of the specification) requires a substituent (R¹), on Ring A and that R¹ cannot be hydrogen. On the other hand, Compound 1 of Maruyama et al., Scheme I, upper left column of page 4743, does not contain such a substituent. While the Maruyama ring is bridged with a methylene group, methylene is not one of the choices for R¹. Other editorial changes to the claims to remove non-elected subject matter were also discussed. It was also suggested that the Applicants provide further evidence of a nexus between inhibition of dihydroorotate dehydrogenase and treatment of particular diseases. The Applicants have attached such data to this response. Favorable consideration and allowance of this application is now respectfully requested.

Rejection—35 U.S.C. §112, second paragraph

Claims 1, 5 and 6 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is moot in view of the amendment of these claims to further clarify that the recited alkyl or cycloalkyl groups are substituted by [D_m—(CHR₃)_n]_qY. When q is zero and Y is hydrogen, the end group may still be alkyl or cycloalkyl. Support for this amendment is evident in formula (I) in original Claim 1 and on page 3 of the specification.

Rejection—35 U.S.C. §102

Claims 1, 5 and 6 were rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama et al., J. Org. Chem. 50:4742. Maruyama et al. do not anticipate independent Claim 1, because the ring structure in Maruayama corresponding to Ring A in Claim 1 is not substituted by a group corresponding to R¹.

Present Claim 1 requires that R1 be -CO₂R'', -SO₃H, -CONR*R', -CR`O, -SO₂-NR*R', -NO₂, -SO₂-R', -SO-R*, -CN, alkoxy, -OH, -SH, alkylthio, -NR'-CO₂-R', -NR'-CO-R*, -NR'-SO₂-R', -O-CO-R*, -O-CO₂-R*, -O-CO-NR'R'', cycloalkyl, alkylamino, hydroxyalkylamino, aryl, or heteroaryl. Accordingly, in view of this structural difference between the prior art compound and that of Claim 1, the Applicants request that this rejection be withdrawn.

Information Disclosure Statement

The Applicants respectfully request that the Examiner formally acknowledge the consideration of document AA, Carney et al., U.S. Patent No. 4,126,691, previously cited on Form 1449 dated July 12, 2004.

Allowable Subject Matter

The Applicants thank Examiner Shailendra-Kumar for indicating that the elected species is allowable. They now respectfully request that method of treatment claims which depend from or otherwise incorporate all the limitations of the allowable product claims be examined and also allowed.

Disease Treatment and Nexus to DHODH

As requested by the Examiner, the Applicants attach herewith research articles describing the nexus between inhibition of DHODH and disease treatment. See the document "DHODH Inhibitors" which provides a summary of diseases and disorders modulated by DHODH inhibitors and the other attached documents detailing specific disease associations.

CONCLUSION

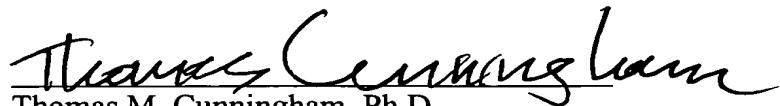
In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

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